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A Dissertation on Cholera Infantum

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Cholera Infantum

History.—This disease becomes most prevalent, & is attended with the greatest danger, during the warm, months of summer, & the beginning of autumn, when it is called by the common name of the disease of the season. It prevails in most large towns of the United States, & is distinguished in Charleston, S.C. by the name of the April & May disorder from its occurring in these months. It seldom appears in Philadelphia & N. York until July, & it continues till the latter part of September; tho' from premature heats of summer it may occur it may appear earlier; or from their unusual continuance, it may be considerably protracted.

It generally spreads, & assumes a more dangerous aspect, in proportion as the heat increases.

The temperature of the weather has a very great influence over this disease; great vicissitudes of heat & cold, sudden, & long continued rains after a dry state of the atmosphere, generally favour the operation of the exciting cause,— hence the reason, why in some years, it proves so alarming among children, while in others

from the mild & uniform temperature of the air, it is comparatively a rare occurrence. It is my intention to describe only one form of this disease, which I have had frequent opportunities of observing. It consists in nausea, vomiting & purging. Tho' this disease may attack children at any age, it occurs more frequently from a few weeks, after birth to the third & fourth year. It is not unfrequently preceded by the usual precursors of the common bilious intermitting, & remitting fevers of warm climates. It comes on, & is continued with evident symptoms of Pyrexia, loss of appetite, occasional fits of nausea, & sometimes vomiting without purging, tho' more usually the contrary; but it most usually comes on with violent purging & vomiting, which continue together, or alternate with each other. The matter evacuated, is thin & watery commonly; but sometimes thick & tenacious mucus, inodorous, or offensive; it is usually sour & putrid, the natural faces are retained. Sometimes the food passes off without undergoing the process of digestion; tenesmus sometimes will occur.

Prolapsus ani has been noticed by some writers, but this is by no means a common occurrence; where it does occur, it is owing to a relaxation of the levator, & sphincter ani muscles, & will mostly, disappear as the patient gains strength. Worms are often discharged in different stages of this disease. The symptoms enumerated are accompanied by fever, which is of a remitting kind, & discovers evident exacerbations, especially in the evening, & like many other bilious diseases of the season is marked with morning remissions; the pulse is small & feeble, the temperature unequally distributed, the head, & stomach hot while the extremities are cold. Sometimes nausea comes on with vomiting, & a moisture breaks out mostly about the face, the abdomen swells, & is remarkably hot. One of the most frequent, & distressing symptoms in the formidable complaint is a severe pain, or griping in the bowels; this may be known by the child's starting & crying, & by forcible contraction of its arms & feet towards the stomach. The duration of the disease is various,

depending much on the manner in which it comes on, the habit & change of the weather; if the first attack comes on with violence, all the alarming symptoms rapidly increase, if left to nature, the strength of the patient is suddenly diminished, when a fainting comes on, attended with cold extremities, cold sweats, & subsultus tendinum, which sometimes puts an end to the unhappy sufferer in one day. A hot, dry, & moist atmosphere seldom fails to increase the violence of the symptoms; whereas, a cold day very frequently abates its violence & disposes it to a favourable termination. It continues in some instances, with but few occasional alterations, five or six weeks, & even for two or three months, before any considerable change is effected; when the symptoms grow more numerous & distressing, the body becomes emaciated, the adipose matter, seems to be absorbed, the skin wrinkled, & thrown into folds, a constant inclination to go to stool takes place, tho little or no matter can be voided, & that is of a watery or green colour, the eyes become languid, & sink deep in their sockets;

the features are contracted, livid spots appear, sore mouth — hiccup, convulsions, & a strongly-marked hyppocratic countenance, generally precede a fatal termination of the complaint.

Diagnosis: The diseases with which Cholera infantum may be confounded, are, Hydrocephalus internus, & dysentery, & affections arising from worms in the alimentary canal. To distinguish it from Hydrocephalus internus, it is necessary to remark, that the pulse in the latter continues more full, tense, & frequent, & the evacuations when they do occur are not so copious, nor accompanied with any discharge of bile; it is more accompanied with the obstinate pain in the head; the pupil of the eye is much dilated, strabismus or squinting, much disturbed with noise, & pretty constantly preceded by, or accompanied with constipation of the bowels. It is distinguished from dysentery, by not being attended with so much pungent pain & griping, neither are the stools marked or streaked with blood. Cholera Infantum has been blended with some affections arising from worms in the alimentary canal.

Tho' some physicians thought it sufficiently distinguished from worms, not being discharged in the first attack of the complaint. But it has been observed that worms are sometimes evacuated in the different stages of this disease; which I presume to be owing to the violence of the Diarrhea suddenly expelling them. In cholera excretions are very different, nor is it preceded by or accompanied with, that voracious appetite, that disturbed sleep, the picking & rubbing of the nose; & most of the characteristic symptoms of worms will be found wanting.

Prognosis; In most diseases, it appears to be a difficult task, to lay down with any precision, the prognostic symptoms, as patients have recovered under every discouraging circumstance, while others have died when the most favourable prognostics were present; under this impression I feel diffident in attempting to say much under this head. But it is natural to conclude, that when the disease attacks a very delicate habit in warm, dry weather, when the vomiting is excessive, the stomach very irritable, with a weak & quick pulse &

cold extremities, we may inform the parents, or nurse that life is suspended as by a thread, & that the probability is, that a speedy & fatal termination will take place. And so, on the contrary, when the symptoms are more mild, & when the vomiting is checked, & the fever & thirst not so great, a moderate or a mild pulse, we may encourage them to hope. For it is very probable that the patient will do well.

Predisposing causes: Predisposition is that state of the body, which renders it susceptible to the operation of an exciting cause. This predisposing state is the same in all fevers, viz: general debility — hereditary disposition by weak organization, a particularly irritable state of the stomach & bowels, arising from natural conformation, or a diseased state of the body, as is often the case with worms; a continual irritation of the gums, as in dentition, which seems to me to be the most frequent cause of this complaint; inequality of diet, either in quality, or quantity. Obstructed prespiration sometimes takes place, by exposing the child to a sudden

current of air, when the pores are opened by previous confinement. Exciting cause; as debility is the predisposing cause, & this is always attended with an accumulated excitability, the exciting must be stimulants, & are all such as induce fever, which is to be considered as the primary affection — For the cause which acts generally on the system, I shall refer to authors. Those which act directly on the stomach & intestines. Aliments offensive from quality or quantity, sudden repulsion of eruption of the skin, The use of drastic purges, or to long continued use of rhubarb, magnesia, alba &c, by stimulating the vessels of the bowels to an undue action is sufficiently established, how a sudden stoppage of perspiration, or the repulsion of eruptions on the skin, act on the prima via to produce cholera infantum must be imputed to sympathy that exists between the surface of the body & the intestinal canal.

Cure. As I did not conceive it necessary to take separate views of the different theories, laid down by

different writers heretofore; I shall not at present notice their different methods of cure, it would be taking up time to serve no other purpose than to show the improvement in medical science, which I think must be sufficiently evident to every observer. I shall now proceed to mention the remedies, according to the present state of the science of our profession. Our earliest effort ought to be, to cleanse the stomach & bowels; for this purpose castor oil with laudanum, in mild cases, answers very well, it calms the irritation of the system &c, the warm bath, in more violent cases is to be used; to produce more copious evacuations calomel & opium may be exhibited which will also allay irritation, When the child is troubled with incessant vomitings then we may give lime-water & milk, strong coffee with sugar or cream, anodyne injections, warm fomentations to the stomach. Emetics have been used with timidity in this disease, tho' there appears to be no reason assigned. Ipecachuanha so as to puke answers extremely well, it determines to the surface, & invites the disease from the bowels. If the pulse be elevated venesection may be employed; here we are to recollect the insidious pulse in these diseases. It is a remediable

course; it tranquillizes the distress of the child & prevents inflamation. After freely evacuating the stomach & intestines by mercurial purges, they may be laid aside; but the bowels ought to be kept open. We now give our remedies to allay intestinal irritation, & emulge the liver, promoting bilious discharges & determining to the surface; Gum opii 1 gr. Calom. 2 gr Ipecac. 3 gr to be divided into 8 or 10 powders, to be given, one every 2 or 3 hours pro re nata. This is an excellent remedy in these cases. To restore the liver to a healthy condition should be our chief object; — if we effect this, we shall most generally succeed in curing the disease. To determine to the surface & to equalize the temperature, the warm bath, should be resorted to; the effects of this are not lasting, therefore, we use it daily, or twice a day. The bath may be impregnated with brandy, pepper or salt &c. Blisters are indispensible in this complaint, they should be applied to the stomach & extremities, as they sometimes prove serviceable in promoting diaphoresis. The disease now sometimes changes to Diarhoea; the

medies are the cretaceous or alkaline preparations, or spiced rhubarb. The diarrhoea is often distressing, causing 40 or 50 stools per diem. Alum in the dose of 1, 2, or 3 grs with ½ or ¼ gr opii, is useful; or sulph. ferri. 2 grs, Sulphuric acid 10 drops, loaf sugar 1 dr, aqua font. 1 oz M. ft. Dose a tea-spoon full 3 or 4 times per diem. Chalk, with tincture kino has much reputation, as an astringent, logwood is good, a strong decoction dew, or blackberry root is recommended by Dr Chapman as preferable to all others. Great attention to the diet is requisite; if the child be not weaned, the milk of the mother is the best nourishment; but if it be, boiled milk, toast water, tapioca, arrow root &c. Dr Chapman recommended pieces of fat ham, & salt, or smoked fish, in the declining stages; Ripe fruit is also of service. But change of air is the best remedy that can be administered; without it, a relapse will supervene a relapse till death arrives. As soon as it breathes the pure air of the country a change is almost instantly effected, & a restoration is almost sure to take place.